Special Report

India’s Ports: New Engines of Global Trade

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Contents

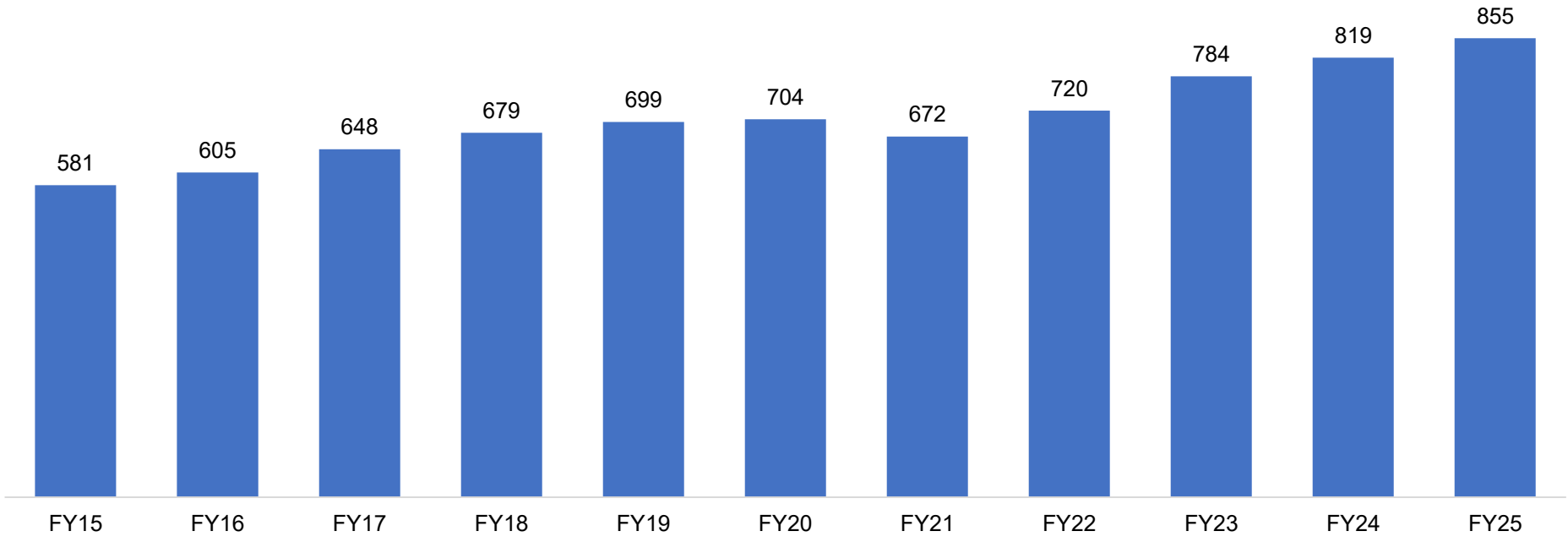
Industry Snapshot

From record cargo highs to global shifts, India's deep-draft ports anchor resilient supply chains

The Significance of Indian Ports

- India's 7,500-km coastline supports a strong maritime network of 12 major ports and ~200 minor and intermediate ports.
- These ports handle ~95% of India's international trade by volume and ~70% by value, highlighting their critical economic role.
- In FY24, Indian ports moved 1.65 billion metric tonnes (BMT) of cargo, posting a 7.8% YoY growth.
- In FY25, major ports alone set a record, handling 855 million tonnes, driven by a 10% surge in container traffic and high fertiliser and petroleum volumes.
- Indian ports first benefitted from the steep US tariffs on China; however, gains eased after the May 2025 trade deal cut tariffs sharply; still, deep-draft ports remain central to supply-chain diversification.

Trend of cargo handled by major Indian ports (million tonnes)



Source: *Ministry of Ports, Shipping and Waterways, PIB, News Articles*

Government-Driven Transformation

Bold policies and strategic vision powering the next wave of India's port-led growth

Government backing Indian Ports

Two key government initiatives shaping India's ports' growth story:

- **Maritime India Vision 2030:** A strategic blueprint with 150+ targeted initiatives to modernise ports, boost capacity beyond 2,500 Million Metric Tonnes Per Annum (MMTPA), and position India as a competitive global trans-shipment and shipbuilding hub.
- **Amrit Kaal Vision 2047:** A long-term roadmap to transform Indian ports into net-zero, fully automated, multimodal logistics hubs, anchoring India's rise as a global maritime powerhouse.

Maritime India Vision 2030

- **Increase major port capacity to over 2,500 MMTPA:** To meet rising trade demand and position India as a high-capacity global logistics hub by 2030.
- **Reduce average vessel Turnaround Time (TAT) from ~48 hours to <24 hours**: Cut waiting and processing times through automation, better dredging, and streamlined customs to match global benchmarks.
- **Develop world-class transshipment hubs (e.g., Vizhinjam, Vadhavan):** Capture a larger share of international cargo currently routed through ports like Colombo and Singapore.
- **Expand Port Community System (PCS) for complete digitalisation**: Enable seamless, paperless cargo movement using blockchain and integrated IT systems for real-time tracking.
- **Establish port-based industrial clusters & logistics parks:** Leverage port proximity to build value-added manufacturing, storage, and processing zones, boosting exports and local jobs.
- **Enhance share of containerised cargo from ~35% to >60%:** Increase efficiency and lower handling costs by shifting more bulk and break-bulk cargo to containers.
- Attract private and FDI investment through PPP projects
- Promote coastal shipping and Ro-Ro/Ro-Pax terminals to decongest roads

Amrit Kaal Vision 2047

- **Transform India into a global maritime hub with ultra-modern ports:** Upgrade capacity, infrastructure, and service standards to rival top ports like Singapore, Rotterdam, and Shanghai.
- **Achieve net zero emissions at major ports by 2047:** Invest in shore-to-ship power, electrified equipment, and renewable energy to align with global ESG goals.
- **Raise India's share in global shipbuilding and repair market significantly:** Expand domestic shipyards and tap export demand, supporting "Make in India, Make for the World."
- **Build green hydrogen bunkering and LNG terminals at major ports:** Position ports as clean energy hubs and attract next-generation vessels running on low-carbon fuels.
- Boost domestic fleet capacity (oil tankers, container ships) to reduce reliance on foreign vessels.
- Position ports as multimodal logistics nodes integrated with rail, road, and inland waterways.
- Develop next-generation mega ports with automation and AI-driven operations.
- Achieve seamless cargo movement through end-to-end digitisation and blockchain

Source: *Ministry of Ports, Shipping and Waterways, Sagarmala, PIB*

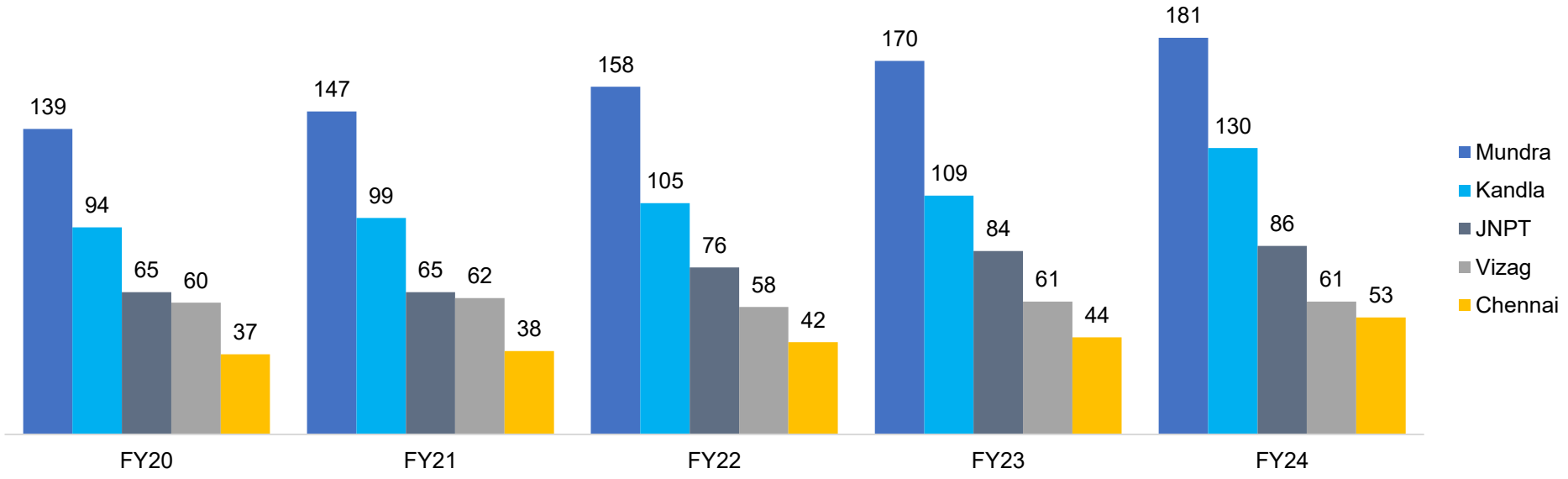
Strategic Power (1/2)

Modern ports, multimodal links, and market-driven expansion power the surge

Why Cargo Volumes Keep Climbing

- **Capacity expansion and modernisation:** Investments in deeper drafts, new berths, and mechanised handling boosted throughput, especially at Mundra, Jawaharlal Nehru Port Trust (JNPT), and Chennai.
- **Containerisation and high-value trade:** Strong growth in container traffic driven by auto parts, electronics, and finished vehicles, notably at JNPT and Chennai.
- **Improved hinterland connectivity:** Better rail and road integration accelerated cargo movement at Kandla, Visakhapatnam, and Mundra.
- **Diversified cargo mix:** Shifts from traditional bulk to liquid, crude, fertilisers, and chemicals reduced dependency on single commodities.
- **Digitisation and efficiency gains:** PCS systems, faster clearances, and automation reduced vessel turnaround times and boosted competitiveness across ports.

Evolving volumes across major ports in India (million metric tonnes)



Source: *Ministry of Ports, Shipping and Waterways, Indian Port Association, Adani Ports, Motilal Oswal, PIB, News Articles*

Strategic Power (2/2)

India climbs to 3rd in dry cargo shipbuilding, while ports boost capacity and cut turnaround time

India among the top 5 cargo builders

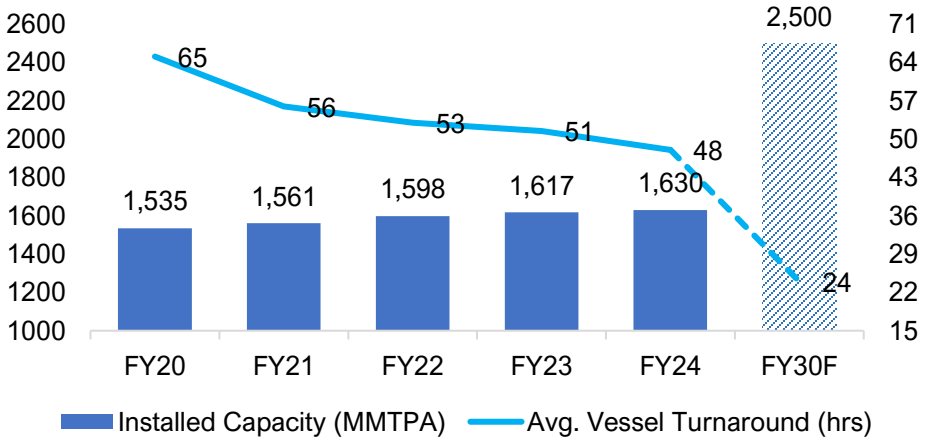
Globally, as of June 2025, India ranks third in building general dry cargo vessels for the European short sea trade, making a massive leap from outside the top 20 list in 2020.

- **China** leads with ~24.5 million DWT (deadweight tonnage), reflecting its dominant yard capacity and scale.
- **South Korea** follows at ~15.1 million DWT, driven by its world-class bulk-carrier and multipurpose yards.
- **India**, in 3rd place, delivered ~7.25 million DWT, marking a rapid ramp-up under its bold Maritime Amrit Kaal Vision 2047 push.
- **Japan** contributed ~5.9 million DWT, bolstered by its niche coaster and small-vessel expertise.
- **Vietnam** rounds out the top five with ~3.1 million DWT, reflecting its growing, but still nascent short-sea export orders.

Rank	Country	Aggregate million DWT (2024)
1	China	24.5
2	South Korea	15.1
3	India	7.2
4	Japan	5.9
5	Vietnam	3.1

Rising port capacity, declining vessel turnaround time

- Installed cargo-handling capacity across all 12 major ports i.e. the sum of each port's maximum annual throughput in million metric tonnes per annum (MMTPA), climbed from 1,534.9 MMTPA in FY20 to 1,629.9 MMTPA in FY24.
- Average vessel turnaround time dropped from 65.1 hours in FY20 to 48.1 hours in FY24, reflecting measurable efficiency gains at major ports.
- Driven by rising trade demand, government-led modernisation under Sagarmala and Maritime India Vision 2030, and a shift toward containerisation and efficiency, ports expanded capacity to handle larger vessels and capture more global shipping traffic. This momentum is expected to continue aiming to expand major port capacity to 2,500 MMTPA and reduce the avg. vessel turnaround time to 24 hours by FY30.



Source: *Ministry of Ports, Shipping and Waterways, Indian Port Association, Brokers Market & Trend Information Report, PIB, News Articles, Note: F-Forecasted*

US Tariffs Reshape Trade

Vizhinjam and Cochin gain as new hubs; big players boost investment to capture re-routed trade

How are India's ports expected to benefit from U.S. tariffs?

- In mid-2024, the U.S. imposed steep tariffs (up to 100%) on Chinese EVs and up to 50% on solar panels and semiconductors, forcing shippers to rethink routes to Europe and North America. Transshipment was historically dominated by Singapore (~53% market share) and Colombo (~75% trans-shipment share), but the realignment opened doors for India's deep-water ports.
- **Why are the Vizhinjam & Cochin ports rising?**
  - **Vizhinjam** offers an 18-meter natural draft right on the busy East–West lane, cutting ~24 hours of deviation and handling Ultra Large Container Ships (ULCS) vessels (10,000–25,000 TEU).
  - **Cochin** already handles 14.5-meter draft ships (soon 16-meter), boasts a bonded free-trade enclave and strong rail/road links.

Together, they present low-cost, low-delay alternatives to Singapore and Colombo just when firms are scrambling to sidestep the U.S. tariffs.

Port operators gearing up for expansion

adani | Ports and Logistics

- **Mundra expansion:** Mundra Port, which is already India's largest commercial port, received environmental clearance for a Rs. 45,000 crore project to more than double Mundra's capacity from ~250 MMTPA in 2024 to 514 MMTPA by 2030. The expansion is designed to handle rising volumes of containers, dry bulk, and liquid cargo, reinforcing Mundra's role as a critical gateway for India's trade and transshipment ambitions.
- **Overall domestic capex:** Committed Rs. 12,000 crore in FY25 alone toward ports, logistics, marine services, technology and decarbonisation. This is part of a Rs. 50,000 crore five-year plan to boost domestic throughput from 633 MMTPA in 2024 to 1 billion TPA by 2030.

DP WORLD

DP World is strengthening inland connectivity at JNPT via:

- In 2020, DP World announced that it is building a 44-acre Free-Trade Warehousing Zone (FTWZ) at JNPT with an investment of ~Rs. 1,000 crore.
- The project is part of the Hindustan Infralog Private Limited (HIPL) joint venture (DP World 65%, National Investment & Infrastructure Fund [NIIF] 35%), which plans to invest ~Rs. 25,000 crore in ports and logistics nationwide by 2030.
- The FTWZ will boost trade in sectors like electronics, IT, telecom, pharma, chemicals, machinery, agri-products, and metals.

Source: *Ministry of Ports, Shipping and Waterways, News Articles*

New Waves of Maritime Investment (1/3)

Sagarmala is driving Rs. 5.8 lakh crore of investments to transform ports into growth engines

Projects under Sagarmala Programme

- Launched in 2015, Sagarmala covers Rs. 5.8 lakh crore across 839 projects to modernise ports, improve connectivity, and build coastal industrial hubs.
- By April 2024, 262 projects (Rs. 1.4 lakh crore) were completed, 217 (Rs. 1.6 lakh crore) under implementation, and 360 (Rs. 2.7 lakh crore) under development.
- Rs. 40,000 crore budgetary support for Sagarmala 2.0 aims to unlock an ambitious Rs. 12 lakh crore in investments over the next decade.
- Capital expenditure rose 37% in FY24 to Rs. 5,218 crore, reflecting momentum across key pillars like port modernisation, connectivity, coastal shipping, and community development.

Pillar	Completed		Under Implementation		Under Development		Total	
	No. of Projects	Project Cost (Rs.Cr.)	No. of Projects	Project Cost (Rs.Cr.)	No. of Projects	Project Cost (Rs.Cr.)	No. of Projects	Project Cost (Rs.Cr.)
Port Modernisation	98	32,066	62	75,650	74	1,82,652	234	2,91,622
Port Connectivity	91	57,997	57	68,010	131	80,366	279	2,06,363
Port Led Industrialisation	9	45,865	3	9,247	2	775	14	55,887
Coastal Community Development	21	1,559	32	6,166	28	3,847	81	11,573
Coastal Shipping and IWT	43	2,956	63	4,665	125	6,980	231	14,601
Total	**262**	**1,40,443**	**217**	**1,63,738**	**360**	**2,74,620**	**839**	**5,79,562**

Source: *Sagarmala Programme website, PIB*

New Waves of Maritime Investment (2/3)

Public-Private investments are shaping the future of Indian ports

Public Private Investments in Indian ports

Port-Led Industrialisation

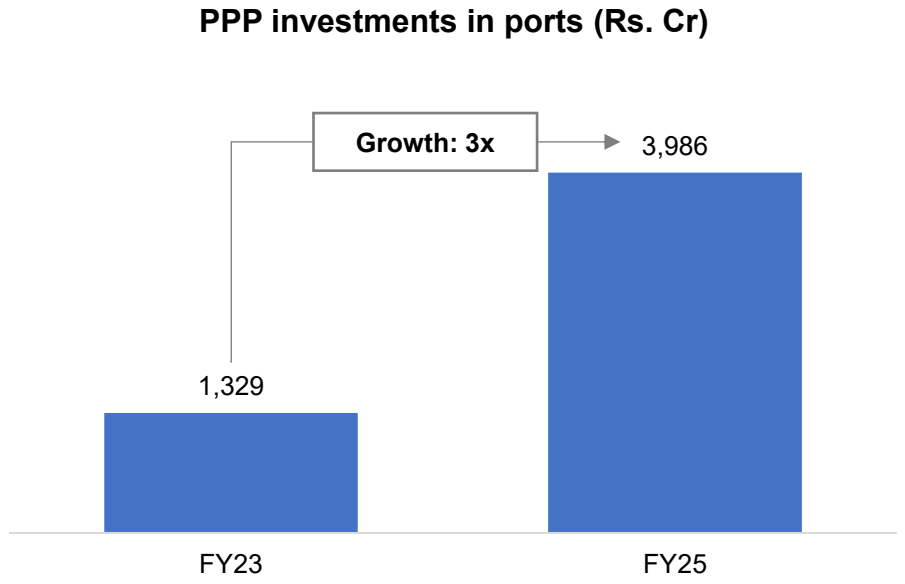
962 acres of prime port-adjacent land earmarked in FY25 to host logistics parks, customs-bonded warehouses, container freight stations and petrochemical tank farms, strengthening last-mile connectivity.

Expected to generate **Rs. 7,565 crore** in lease premium and upfront fees in FY25 alone, providing immediate revenue for port authorities to reinvest in modernisation.

Private developers have pledged **Rs. 68,780 crore in capital expenditure** over the next 5–7 years, targeting strategic assets like Container Freight Station (CFS) hubs at Visakhapatnam & Ennore, and large-scale tank farms at Deendayal (Kandla).

Together, these PPP-driven land-use plans illustrate how India's ports are **evolving beyond gateways into integrated industrial and logistics ecosystems**, directly supporting trade growth and value addition

Public Private Partnerships triple in value



- PPP project awards at the 12 major ports nearly tripled, rising from Rs. 1,329 crore in FY23 to Rs. 3,986 crore in FY25, reflecting strong private appetite for port infrastructure.
- Investments targeted critical upgrades such as dredging and berths at Mundra and Kandla, mechanised cargo systems at JNPT & Chennai, rail-linked container depots on dedicated freight corridors, and digital PCS platforms at Kolkata & Cochin.

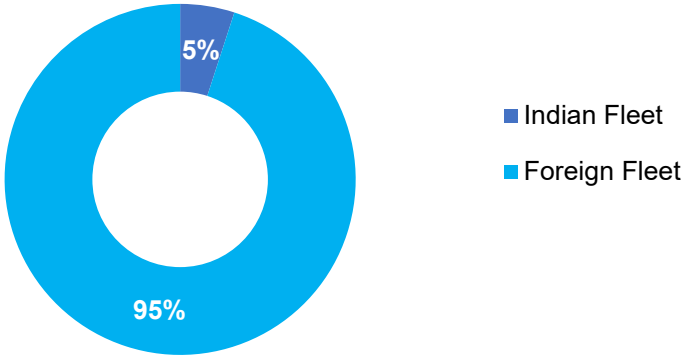
Source: *Marine Insight, PIB, News Articles*

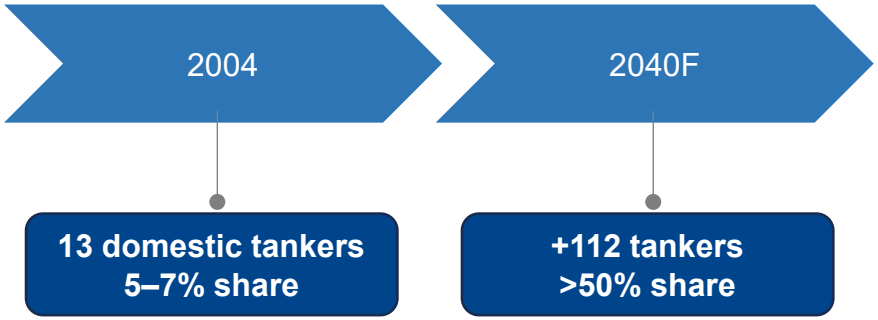
New Waves of Maritime Investment (3/3)

Building tankers at home to fuel India's energy security

India's Push for Crude Shipping Self-Reliance

India's dependence on foreign oil tanker fleet (% share)





- **Surging import-driven demand:** In FY25, India's crude oil imports climbed 4.2% YoY to 242.4 million tonnes (~4.8 million barrels per day), requiring ~180 tankers rotating annually to serve domestic refiners.
- **Heavy dependence on foreign fleets:** Today, <95% of this crude is transported on foreign-owned vessels, mainly VLCCs and Suezmaxes from Greece, Japan, and other flag states, making India vulnerable to global freight rate volatility.
- **Limited domestic fleet presence:** The Shipping Corporation of India and a few private players operate only ~13 crude oil tankers (~1.5 million DWT), enough to cover just 5–7% of India's annual crude transport demand.
- **Strategic plan to close the gap:** The government plans to invest Rs. 85,600 crore by 2040 to build 112 locally made crude tankers, supported by a Rs. 25,000 crore maritime fund, aiming to boost self-reliance, reduce forex outflows, and create shipbuilding capacity at scale.

Source: *Ministry of Ports, Shipping and Waterways, News Articles, Note; F- Forecasted*

Ports at the Crossroads: Challenges, Change & Opportunity

Balancing green growth, digital shifts, and the capacity to meet global demand

Bottlenecks in India's ports' growth story

- Despite progress, only ~22% of cargo moves by rail, pushing more freight onto roads and raising logistics costs.
- India's low containerisation (~35% vs. global ~60%) stems from limited Container Freight Station (CFS) and Inland Container Depot (ICD) infrastructure, weak multimodal connectivity, domestic container shortages with high leasing costs, and complex land-lease rules coupled with scarce long-term, affordable financing, all of which slow private investment and capacity build-out.
- Customs processes remain lengthy, with average clearance times of 3–4 days, twice that of peers like Singapore, undermining competitiveness.
- Fragmented governance between centre, states, and private sector, fuels regulatory uncertainty and slows execution.
- Key projects like the Vadhavan Port face environmental challenges, underlining the need for sustainable, community-backed growth models.

Next Wave: Green Ports, Smart Logistics, Inland Waterways

- **Green ports push:** By 2030, 50% of India's major ports are expected to be carbon-neutral; JNPT alone cuts <6,800 tonnes of CO_2 annually with its 8.75 MW solar capacity, alongside rapid adoption of shore power and electrified cranes.
- **Smart logistics leap:** The Port Community System fully digitised documentation, while blockchain pilots at Chennai and JNPT improved transparency, reduced costs, and sped up cargo clearance.
- **Integrated infrastructure:** PM Gati Shakti is connecting ports seamlessly with rail, road, and industrial corridors to cut logistics costs from 13–14% of the GDP to >10% by 2030.
- **Inland waterways growth:** The Inland Waterways Authority of India (IWAI) moved a record 145.5 MMT of cargo in FY25 (CAGR 20.86% since FY14), driven by the Jalvahak scheme, new terminals, navigation upgrades, and digital tracking, unlocking new, cost-efficient cargo routes.

Outlook: Why This Is a Pivotal Moment

- India's ports are evolving from passive gateways to strategic growth engines as global supply chains diversify and energy security gains urgency.
- Capacity is set to rise from 1.65 billion tonnes in FY25 to 2.50 billion tonnes by 2030, driven by high containerisation, green tech, and integrated logistics.
- For investors, this is an inflection point as ports promise steady PPP revenues, leverage India's manufacturing boom, and align with ESG and digital trends.
- Further, potential of future development of port-centric manufacturing hubs, energy corridors, and deeper global shipping integration opens up investment opportunities across logistics, energy security, and supply chain diversification.

Source: *Ministry of Ports, Shipping and Waterways, News Articles*

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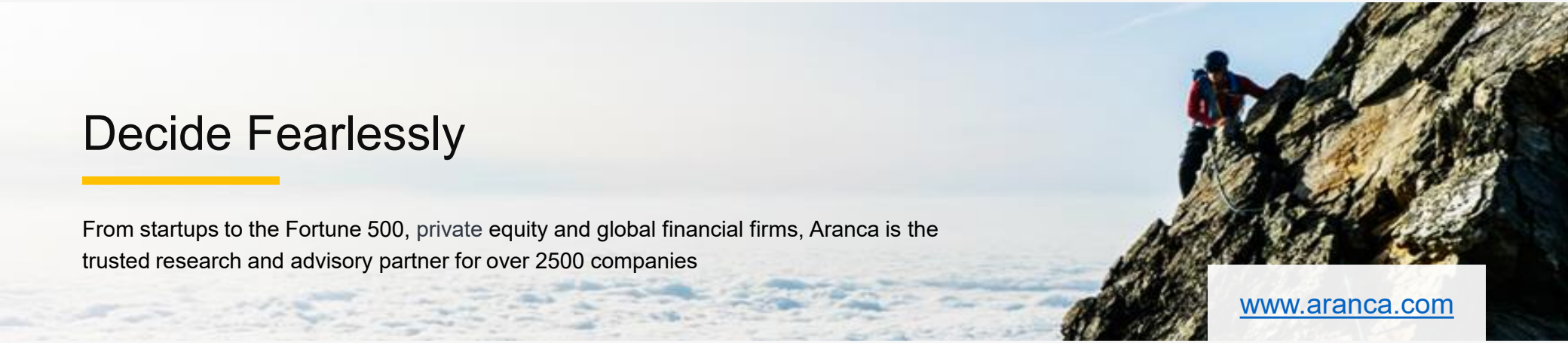

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